

Notice of Allowability	Application No.	Applicant(s)	
	10/768,159	YAMANAKA ET AL.	
	Examiner	Art Unit	
	Ted Kim	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/14/2005.
2. ☒ The allowed claim(s) is/are 9-16.
3. ☒ The drawings filed on 02 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The prior art of record do not fairly teach in permissible combination the following claim limitations:

"A gas turbine having a turbine, a combustor and a gas turbine compressor, comprising: a heat exchanger for exchanging heat of a part of the air compressed by said gas turbine compressor; a mist separator for separating mists in the air having been heat exchanged in said heat exchanger; a filter for removing dusts in the air from said mist separator; a first boost compressor for compressing the air from said filter; a second boost compressor for compressing the air from said filter, said first boost compressor and said second boost compressor being constructed so that the air from said first boost compressor and the air from said second boost compressor are joined; a spray air system arranged so that the air is supplied from an air joining portion where the air from said first boost compressor and the air from said second boost compressor are joined prior to being supplied to said combustor as air for spraying fuel; *and a cooling air system arranged so that the air is supplied from said air joining portion to a high-temperature part of said gas turbine as air for cooling*" nor

"A gas turbine comprising: a heat exchanger for exchanging heat of a part of air compressed by a gas turbine compressor; a mist separator for separating mists in the air having been heat exchanged in said heat exchanger; a filter for removing dusts in the air from said mist separator; a first boost compressor for compressing the air from said filter; a second boost compressor for compressing the air from said filter, said first boost compressor and said second boost compressor being constructed so that the air from said first boost compressor and the air from said second boost compressor are joined; a spray air system arranged so that the air is supplied from an air joining portion where the air

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from said first boost compressor and the air from said second boost compressor are joined prior to being supplied to a gas turbine combustor as air for spraying fuel; *a cooling air system arranged so that the air is supplied from said air joining portion to a high-temperature part of said gas turbine as air for cooling; and means for switching the supply of air from said first boost compressor and the supply of air from said second boost compressor*” nor

A gas turbine having a turbine, a combustor and a gas turbine compressor, comprising: a heat exchanger for exchanging heat of a part of the air compressed by said gas turbine compressor; a mist separator for separating mists in the air having been heat exchanged in said heat exchanger; a filter for removing dusts in the air from said mist separator; a first boost compressor for compressing the air from said filter; a second boost compressor for compressing the air from said filter, said first boost compressor and said second boost compressor being constructed so that the air from said first boost compressor and the air from said second boost compressor are joined; a spray air system arranged so that the air is supplied from an air joining portion where the air from said first boost compressor and the air from said second boost compressor are joined prior to being supplied to said combustor as air for spraying fuel; *a cooling air system arranged so that the air is supplied from said air joining portion to a high-temperature part of said gas turbine as air for cooling; and means for switching the supply of air from said first boost compressor and the supply of air from said second boost compressor*” nor

“A method of supplying fuel spray air and cooling air of a gas turbine having a turbine, a combustor and a gas turbine compressor, said method comprising: heat exchanging a part of air compressed by said gas turbine compressor; separating mists in the air having been heat exchanged; removing dusts in the air from which mists are separated; a first air

compression step of compressing the air after removing dusts by a first boost compressor; a second air compression step of compressing the air after removing dusts by a second boost compressor; joining the air compressed by said first boost compressor and the air compressed by said second boost compressor; supplying the joined air to said gas turbine as air for spraying fuel; *and supplying the joined air to a high temperature part of said gas turbine as air for cooling.*”

The closest art of record are the Rose (3,971,210) reference and Nishijima (5,185,997) reference. Rose teaches a first compressor 42 and second compressor 20 where the flow from the first compressor exiting via bypass 54, 56 joins with the flow exiting the second compressor 20. Rose further teaches the fuel is atomized (sprayed) (col. 2, lines 19+) but does not teach using the joined flow from the first and second boost compressor to cool the turbine. Nishijima teaches joining cooling (from 22a, 22b) and spray air (from 11) in the same circuit but only uses a single compressor and hence does not teach cooling the turbine after flow from both the first and second compressor are joined.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The

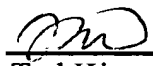
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Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are 703-872-9306 for Regular faxes and 703-872-9306 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler, can be reached on 571-272-4834.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone number is 703-308-0861. General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>

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Primary Examiner	Fax (After Final)	703-872-9306
March 2, 2005		
Technology Center 3700 Receptionist	Telephone	703-308-0861
Patents Assistance Center	Telephone	800-786-9199